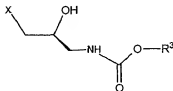


**CURRENTLY PENDING CLAIMS 1-58**

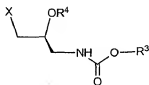
1. A (S)-secondary alcohol having a general structural formula:



wherein R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, and X is halogen, alkylsulfonyl, or arylsulfonyl, or a salt or hydrate thereof.

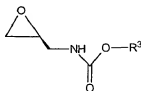
2. The (S)-secondary alcohol of claim 1 wherein R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.
3. The (S)-secondary alcohol of claim 2 wherein R<sup>3</sup> is tertiary butyl.
4. The (S)-secondary alcohol of claim 1 wherein X is Cl.
5. The (S)-secondary alcohol of claim 1 having a name tert-butyl (2S)-3-chloro-2-hydroxypropylcarbamate.
6. The (S)-secondary alcohol of claim 1 in crystalline form.

7. An (S)-ester having a general structural formula:



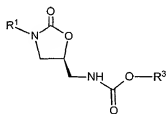
wherein R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, R<sup>4</sup> is C<sub>1</sub>-C<sub>5</sub> alkylcarbonyl, and X is halogen, alkylsulfonyl, or arylsulfonyl, or a salt or hydrate thereof.

8. The (S)-ester of claim 7 where R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.
9. The (S)-ester of claim 8 where R<sup>3</sup> is tertiary butyl.
10. The (S)-ester of claim 7 where X is Cl.
11. The (S)-ester of claim 7 having a name (1S)-2-[(tert-butoxycarbonyl)amino]-1-(chloromethyl)ethyl acetate.
12. The (S)-ester of claim 7 in crystalline form.
13. An (S)-epoxide having a general structural formula:



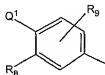
wherein R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, or a salt or hydrate thereof, in crystalline form.

14. The (S)-epoxide of claim 13 wherein  $R^3$  is  $C_4$ - $C_7$  tertiary alkyl
15. The (S)-epoxide of claim 14 wherein  $R^3$  is tertiary butyl.
16. The (S)-epoxide of claim 13 having a name tert-butyl (2S)-oxiranylmethylcarbamate.
17. An (S)-intermediate having a general structural formula:



wherein  $R^1$  is an substituted aryl group and  $R^3$  is  $C_1$ - $C_{10}$  alkyl, or a salt or hydrate thereof, provided that when  $R^3$  is  $C_1$ - $C_4$  alkyl or  $C_7$ - $C_{11}$  araalkyl and  $R^1$  is phenyl, the substituents on  $R^1$  are not hydrogen, monofluoro, monochloro, monobromo, or mononitro substituent, alone or in combination with a 4-methylsulfonyl, 4-methylthio, 4-methylsulfinyl, 4-sulfamyl, 4-isopropyl, 4-( $C_1$ - $C_3$ alkyl)carbonyl, 4-ethyl, 4-(1-hydroxyethyl), or 4-acetyloxyacetyl substituent.

18. The (S)-intermediate of claim 17 wherein  $R^1$  is:



wherein  $Q^1$  is:  $R^{10}R^{11}N$ ,



or  $Q^1$  and  $R^8$  taken together are dihydropyrrolidine, optionally substituted with  $R^{12}$ ,

$Z^1$  is  $CH_2(CH_2)_p$ ,  $CH(OH)(CH_2)_p$ , or  $C(O)$ ;

$Z^2$  is  $(O)_pS$ ,  $O$ , or  $N(R^{13})$ ;

$Z^3$  is  $(O)_pS$  or  $O$ ;

$A^1$  is  $H$  or  $CH_3$ ;

$A^2$  is selected from the group consisting of:

- a)  $H$ ,
- b)  $HO$ ,
- c)  $CH_3$ ,
- d)  $CH_3O$ ,
- e)  $R^{14}OCH_2=C(O)NH$ ,
- f)  $R^{15}OC(O)NH$ ,
- g)  $(C_1-C_3)$ alkoxycarbonyl,
- h)  $HOCH_2$ ,
- i)  $CH_3ONH$ ,
- j)  $CH_3C(O)$ ,
- k)  $CH_3C(O)CH_2$ ,
- l)  $CH_3C(OCH_2CH_2O)$ , and
- m)  $CH_3C(OCH_2CH_2O)CH_2$ ,

or  $A^1-C-A^2$  taken together are  $CH_3-C(OCH_2CH_2O)$ ,  $C(O)$ , or  $C(=NR^{22})$ ;

$R^8$  is  $H$  or  $F$ , or is taken together with  $Q^1$  as above;

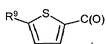
$R^9$  is  $H$  or  $F$ ;

$R^{10}$  and  $R^{11}$  are taken together with the  $N$  atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with  $R^{13}$ ;

$R^{12}$  is selected from the group consisting of:

- a)  $CH_3C(O)-$ ,

- b)  $\text{HC(O)}-$ ,
- c)  $\text{Cl}_2\text{CHC(O)}-$ ,
- d)  $\text{HOCH}_2\text{C(O)}-$ ,
- e)  $\text{CH}_3\text{SO}_2-$ ,
- f)  $\text{F}_2\text{CHC(O)}-$ ,
- g)  $\text{H}_3\text{CC(O)OCH}_2\text{C(O)}-$ ,
- h)  $\text{HC(O)OCH}_2\text{C(O)}-$ ,
- i)  $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$ ,
- j)  $\text{H}_3\text{CCHCH}_2\text{OCH}_2\text{C(O)}-$ ,
- k)  $\text{benzylOCH}_2\text{C(O)}-$ ,
- l)-m)

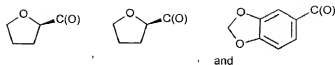


, and



$\text{R}^{13}$  is selected from the group consisting of:

- a)  $\text{R}^{14}\text{OC(R}^{16})(\text{R}^{17})\text{C(O)}-$ ,
- b)  $\text{R}^{15}\text{OC(O)}-$ ,
- c)  $\text{R}^{18}\text{C(O)}-$ ,
- d)  $\text{H}_3\text{CC(O)(CH}_2)_2\text{C(O)}-$ ,
- e)  $\text{R}^{19}\text{SO}_2-$ ,
- f)  $\text{HOCH}_2\text{C(O)}-$ ,
- g)  $\text{R}^{20}(\text{CH}_2)_2-$ ,
- h)  $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$ ,
- i)  $(\text{CH}_3)_2\text{NCH}_2\text{C(O)NH}-$ ,
- j)  $\text{NCCH}_2-$ ,
- k)  $\text{F}_2\text{CHCH}_2-$ ,
- l)-m)



$\text{R}^{14}$  is H,  $\text{CH}_3$ , benzyl, or  $\text{CH}_3\text{C}(\text{O})$ -;

$\text{R}^{15}$  is  $(\text{C}_1\text{-C}_3)$ alkyl, aryl, or benzyl;

$\text{R}^{16}$  and  $\text{R}^{17}$ , independently, are H or  $\text{CH}_3$ ;

$\text{R}^{18}$  is selected from the group consisting of:

- a) H-,
- b)  $(\text{C}_1\text{-C}_4)$ alkyl,
- c)  $\text{aryl}(\text{CH}_2)_m$ ,
- d)  $\text{ClH}_2\text{C}$ -,
- e)  $\text{Cl}_2\text{HC}$ -,
- f)  $\text{FH}_2\text{C}$ -,
- g)  $\text{F}_2\text{HC}$ -, and
- h)  $(\text{C}_3\text{-C}_6)$ cycloalkyl;

$\text{R}^{19}$  is selected from the group consisting of:

- a)  $\text{CH}_3$ ,
- b)  $\text{CH}_2\text{Cl}$ ,
- c)  $\text{CH}_2\text{CH}=\text{CH}_2$ ,
- d) aryl, and
- e)  $\text{CH}_2\text{CN}$ ;

$\text{R}^{20}$  is OH,  $\text{CH}_3\text{O}$ -, or F;

$\text{R}^{21}$  is:

- a)  $\text{CH}_3$ -,
- b)  $\text{HOCH}_2$ -,
- c) aniline, or
- d)  $(\text{CH}_3)_2\text{N-CH}_2$ -,

$\text{R}^{22}$  is selected from the group consisting of:

- a) HO-

- b)  $\text{CH}_3\text{O}-$
- c)  $\text{H}_2\text{N}-$
- d)  $\text{CH}_3\text{OC}(\text{O})\text{O}-$ ,
- e)  $\text{CH}_3\text{C}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{O}-$ ,
- f)  $\text{aryl}-\text{CH}_2\text{OCH}_2\text{C}(\text{O})\text{O}-$ ,
- g)  $\text{HO}(\text{CH}_2)_2\text{O}-$ ,
- h)  $\text{CH}_3\text{OCH}_2\text{O}(\text{CH}_2)_2\text{O}-$ , and
- i)  $\text{CH}_3\text{OCH}_2\text{O}-$ ;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a) F,
- b) Cl,
- c)  $\text{OCH}_3$ ,
- d) OH,
- e)  $\text{NH}_2$ ,
- f)  $(\text{C}_1-\text{C}_4)\text{alkyl}$ ,
- g)  $\text{OC}(\text{O})\text{OCH}_3$ , or
- h)  $\text{NO}_2$ ;

and protected forms thereof.

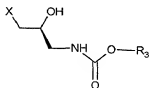
19. The (S)-intermediate of claim 18 wherein  $\text{R}^1$  is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1 $\lambda^6$ -thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

20. An (S)-intermediate of claim 17 where  $\text{R}^3$  is  $\text{C}_4-\text{C}_7$  tertiary alkyl.

21. An (S)-intermediate of claim 20 where  $\text{R}^3$  is tertiary butyl.

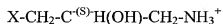
22. An (S)-intermediate of claim 17 having a name (S)-N-[[3-(3-Fluoro-4-morpholinylphenyl)-2-oxo-5-oxazolidinyl]methyl](tert-butoxy)carbamide.

23. A method of preparing a secondary alcohol having a general structural formula:



wherein X is a halogen, alkylsulfonyl, or arylsulfonyl, and  $R^3$  is  $C_1$ - $C_{10}$  alkyl, or a salt or hydrate thereof,

comprising contacting an (S)-3-carbon amino alcohol having a general structural formula:



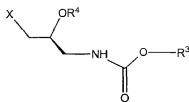
with a base and an carbonylating agent selected from the group consisting of a haloformate having a formula  $R^3O-CO-X$  and a dialkyldicarbonate having a formula  $R^3OCO_2R^3$ .

24. The method of claim 23 further comprising isolating the secondary alcohol in a crystalline form.

25. The method of claim 23 wherein the base is a tri( $C_1$ - $C_5$  alkyl)amine.

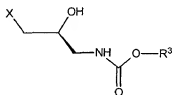
26. A method of preparing a (S)-secondary ester having a general structural formula:





wherein X is a halogen, alkylsulfonyl, or arylsulfonyl,  $R^3$  is  $C_1$ - $C_{10}$  alkyl, and  $R^4$  is  $C_1$ - $C_5$  alkylcarbonyl, or a salt or hydrate thereof,

comprising contacting an (S)-secondary alcohol having a general structural formula:

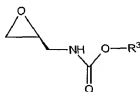


with a base and an acylating agent selected from the group consisting of an acid anhydride having a formula  $O(R^4)_2$ , and an activated acid having a formula  $R^4X$ .

27. The method of claim 26 further comprising isolating the secondary alcohol in a crystalline form.

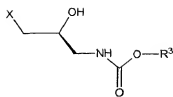
28. The method of claim 26 wherein the base is a tri( $C_1$ - $C_5$  alkyl)amine.

29. A method of preparing a (S)-epoxide having a general structural formula:



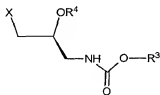
wherein  $R^3$  is  $C_1$ - $C_{10}$  alkyl, or a salt or hydrate thereof, comprising contacting

a) an (S)-secondary alcohol having a general structural formula:



wherein X is a halogen, alkylsulfonyl, or arylsulfonyl; or

b) an (S)-ester having a general structural formula:

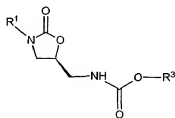


wherein R<sup>4</sup> is C<sub>1</sub>-C<sub>5</sub> alkylcarbonyl, with a lithium cation and a base whose conjugate acid has a pK<sub>a</sub> of greater than about 8.

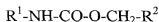
30. The method of claim 29 further comprising isolating the secondary alcohol in a crystalline form.

31. The method of claim 29 wherein the base is a tertiary-butoxide

32. (Amended) A method of preparing an (S)-oxazolidinone having a general structural formula:

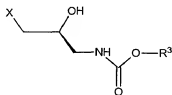


wherein R<sup>3</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, and R<sup>1</sup> is optionally substituted aryl, or a salt or hydrate thereof, comprising contacting a carbamate having a general structural formula:



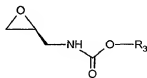
wherein  $R^2$  is selected from the group consisting of  $C_1$ - $C_{20}$  alkyl,  $C_3$ - $C_7$  cycloalkyl, phenyl optionally substituted with one or two  $C_1$ - $C_3$  alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl,  $C_1$ - $C_4$  alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, and isobornyl, or a salt or hydrate thereof, with

- i) a secondary alcohol having a general structural formula:

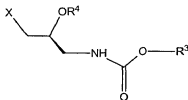


wherein X is halogen, alkylsulfonyloxy, or arylsulfonyloxy, or a salt or hydrate thereof;

- ii) an (S)-epoxide having a general structural formula:



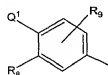
or iii) an (S)-ester having a general structural formula:



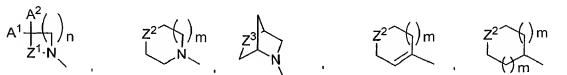
wherein  $R^4$  is  $C_1$ - $C_5$  alkylcarbonyl; in the presence of a lithium cation and a base whose conjugate acid has a  $pK_a$  of greater than about 8.

33. The method of claim 32 further comprising isolating the (S)-oxazolidonone in a crystalline form.

34. The method of claim 32 wherein  $R^1$  is:



wherein  $Q^1$  is:  $R^{10}R^{11}N$ ,



or  $Q^1$  and  $R^8$  taken together are dihydropyrrolidine, optionally substituted with  $R^{12}$ ;

$Z^1$  is  $CH_2(CH_2)_p$ ,  $CH(OH)(CH_2)_p$ , or  $C(O)$ ;

$Z^2$  is  $(O)_pS$ ,  $O$ , or  $N(R^{13})$ ;

$Z^3$  is  $(O)_pS$  or  $O$ ;

$A^1$  is  $H$  or  $CH_3$ ;

$A^2$  is selected from the group consisting of:

- $H$ ,
- $HO$ ,
- $CH_3$ ,
- $CH_3O$ ,
- $R^{14}OCH_2=C(O)NH$ ,
- $R^{15}OC(O)NH$ ,

- g)  $(C_1-C_3)$ alkoxycarbonyl,
- h)  $HOCH_2$ ,
- i)  $CH_3ONH$ ,
- j)  $CH_3C(O)$ ,
- k)  $CH_3C(O)CH_2$ ,
- l)  $CH_3C(OCH_2CH_2O)$ , and
- m)  $CH_3C(OCH_2CH_2O)CH_2$ ,

or  $A^1-C-A^2$  taken together are  $CH_3-C(OCH_2CH_2O)$ ,  $C(O)$ , or  $C(=NR^{22})$ ;

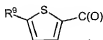
$R^8$  is H or F, or is taken together with  $Q^1$  as above;

$R^9$  is H or F;

$R^{10}$  and  $R^{11}$  are taken together with the N atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with  $R^{13}$ ;

$R^{12}$  is selected from the group consisting of:

- a)  $CH_3C(O)-$ ,
- b)  $HC(O)-$ ,
- c)  $Cl_2CHC(O)-$ ,
- d)  $HOCH_2C(O)-$ ,
- e)  $CH_3SO_2-$ ,
- f)  $F_2CHC(O)-$ ,
- g)  $H_3CC(O)OCH_2C(O)-$ ,
- h)  $HC(O)OCH_2C(O)-$ ,
- i)  $R^{21}C(O)OCH_2C(O)-$ ,
- j)  $H_3CCHCH_2OCH_2C(O)-$ ,
- k)  $benzylOCH_2C(O)-$ ,
- l)-m)

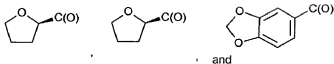


, and



$R^{13}$  is selected from the group consisting of:

- a)  $R^{14}OC(R^{16})(R^{17})C(O)-$ ,
- b)  $R^{15}OC(O)-$ ,
- c)  $R^{18}C(O)-$ ,
- d)  $H_3CC(O)(CH_2)_2C(O)$ ,
- e)  $R^{19}SO_2-$ ,
- f)  $HOCH_2C(O)-$ ,
- g)  $R^{20}(CH_2)_2-$ ,
- h)  $R^{21}C(O)OCH_2C(O)-$ ,
- i)  $(CH_3)_2NCH_2C(O)NH-$ ,
- j)  $NCCH_2-$ ,
- k)  $F_2CHCH_2$ ,
- l)-m



$R^{14}$  is H,  $CH_3$ , benzyl, or  $CH_3C(O)-$ ;

$R^{15}$  is  $(C_1-C_3)$ alkyl, aryl, or benzyl;

$R^{16}$  and  $R^{17}$ , independently, are H or  $CH_3$ ;

$R^{18}$  is selected from the group consisting of:

- a)  $H-$ ,
- b)  $(C_1-C_4)$ alkyl,
- c)  $aryl(CH_2)_m$ ,
- d)  $ClH_2C-$ ,
- e)  $Cl_2HC-$ ,
- f)  $FH_2C-$ ,
- g)  $F_2HC-$ , and
- h)  $(C_3-C_6)$ cycloalkyl;

$R^{19}$  is selected from the group consisting of:

- a)  $CH_3$ ,

- b)  $\text{CH}_2\text{Cl}$ ,
- c)  $\text{CH}_2\text{CH}=\text{CH}_2$ ,
- d) aryl, and
- e)  $\text{CH}_2\text{CN}$ ;

$\text{R}^{20}$  is OH,  $\text{CH}_3\text{O}-$ , or F;

$\text{R}^{21}$  is:

- a)  $\text{CH}_3-$ ,
- b)  $\text{HOCH}_2-$ ,
- c) aniline, or
- d)  $(\text{CH}_3)_2\text{N}-\text{CH}_2-$ ,

$\text{R}^{22}$  is selected from the group consisting of:

- a)  $\text{HO}-$
- b)  $\text{CH}_3\text{O}-$
- c)  $\text{H}_2\text{N}-$
- d)  $\text{CH}_3\text{OC}(\text{O})\text{O}-$ ,
- e)  $\text{CH}_3\text{C}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{O}-$ ,
- f) aryl- $\text{CH}_2\text{OCH}_2\text{C}(\text{O})\text{O}-$ ,
- g)  $\text{HO}(\text{CH}_2)_2\text{O}-$ ,
- h)  $\text{CH}_3\text{OCH}_2\text{O}(\text{CH}_2)_2\text{O}-$ , and
- i)  $\text{CH}_3\text{OCH}_2\text{O}-$ ;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a) F,
- b) Cl,
- c)  $\text{OCH}_3$ ,
- d) OH,
- e)  $\text{NH}_2$ ,
- f)  $(\text{C}_1-\text{C}_4)$ alkyl,
- g)  $\text{OC}(\text{O})\text{OCH}_3$ , or

h) NO<sub>2</sub>;  
and protected forms thereof.

35. The method of claim 34 wherein R<sup>1</sup> is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1λ<sup>6</sup>-thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

36. The method of claim 32 where R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.

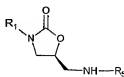
37. The method of claim 36 where R<sup>3</sup> is tertiary butyl.

38. The method of claim 32 where R<sup>2</sup> is methyl.

39. The method of claim 32 where X is Cl.

40. The method of claim 32 wherein the (S)-oxazolidinone is (S)-N-[[3-(3-fluoro-4-morpholinylphenyl)-2-oxo-5-oxazolidinyl]methyl]t-butoxycarbamide.

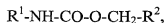
41. A method of preparing an (S)-oxazolidinone having a general structural formula:





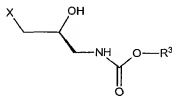
wherein  $R^2$  is  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  cycloalkylcarbonyl,  $C_1$ - $C_6$  alkylthiocarbonyl, or  $C_1$ - $C_6$  cycloalkylthiocarbonyl, and  $R^1$  is optionally substituted aryl, or a salt or hydrate thereof, comprising:

- (a) contacting a carbamate having a general formula



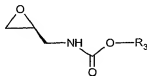
wherein  $R^2$  is selected from the group consisting of  $C_1$ - $C_{20}$  alkyl,  $C_3$ - $C_7$  cycloalkyl, aryl optionally substituted with one or two  $C_1$ - $C_3$  alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl,  $C_1$ - $C_4$  alkyl, nitro, cyano, or tri-fluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethyl-silylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, 2-furanylmethyl, isobornyl, and hydrogen; with

- i) a secondary alcohol of a general structural formula:

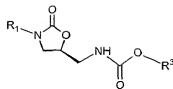


wherein X is a halogen, alkylsulfonyl, or arylsulfonyl, and  $R^3$  is  $C_1$ - $C_{10}$  alkyl; or

- ii) an epoxide having a general structural formula:



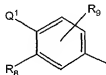
in the presence of a lithium cation and a base whose conjugate acid has a pKa of greater than about 8, to provide a ring-t-butylcarbamyl compound of a general structural formula:



(b) contacting the reaction product of step (a) with aqueous acid; and  
 (c) contacting the reaction product of step (2) with a base and an acylating or thioacylating agent selected from the group consisting of (i) an acid anhydride of the structural formula  $O(R^5)_2$ , (ii) an activated acid of the structural formula  $R^5X$ , or (iii) a dithioester of the structural formula  $R^5S(C=S)R^5$ , wherein  $R^5$  is  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  cycloalkylcarbonyl,  $C_1$ - $C_6$  alkylthiocarbonyl, or  $C_1$ - $C_6$  cycloalkylthiocarbonyl, and X is halogen, alkylsulfonyl, or arylsulfonyl.

42. The method of claim 41 further comprising isolating the (S)-oxazolidonone in a crystalline form.

43. The method of claim 41 wherein  $R^1$  is:



wherein  $Q^1$  is:  $R^{10}R^{11}N$ ,



or  $Q^1$  and  $R^8$  taken together are dihydropyrrolidine, optionally substituted with  $R^{12}$ ;

$Z^1$  is  $CH_2(CH_2)_p$ ,  $CH(OH)(CH_2)_p$ , or  $C(O)$ ;

$Z^2$  is  $(O)_pS$ ,  $O$ , or  $N(R^{13})$ ;

$Z^3$  is  $(O)_pS$  or  $O$ ;

$A^1$  is  $H$  or  $CH_3$ ;

$A^2$  is selected from the group consisting of:

- a)  $H$ ,
- b)  $HO$ ,
- c)  $CH_3$ ,
- d)  $CH_3O$ ,
- e)  $R^{14}OCH_2-C(O)NH$ ,
- f)  $R^{15}OC(O)NH$ ,
- g)  $(C_1-C_3)alkoxycarbonyl$ ,
- h)  $HOCH_2$ ,
- i)  $CH_3ONH$ ,
- j)  $CH_3C(O)$ ,
- k)  $CH_3C(O)CH_2$ ,
- l)  $CH_3C(OCH_2CH_2O)$ , and
- m)  $CH_3C(OCH_2CH_2O)CH_2$ ,

or  $A^1-C-A^2$  taken together are  $CH_3-C(OCH_2CH_2O)$ ,  $C(O)$ , or  $C(=NR^{22})$ ;

$R^8$  is  $H$  or  $F$ , or is taken together with  $Q^1$  as above;

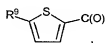
$R^9$  is  $H$  or  $F$ ;

$R^{10}$  and  $R^{11}$  are taken together with the  $N$  atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with  $R^{13}$ ;

$R^{12}$  is selected from the group consisting of:

- a)  $CH_3C(O)-$ ,
- b)  $HC(O)-$ ,
- c)  $Cl_2CHC(O)-$ ,
- d)  $HOCH_2C(O)-$ ,
- e)  $CH_3SO_2-$ ,
- f)  $F_2CHC(O)-$ ,
- g)  $H_3CC(O)OCH_2C(O)-$ ,
- h)  $HC(O)OCH_2C(O)-$ ,

- i)  $R^{21}C(O)OCH_2C(O)-$ ,
- j)  $H_3CCHCH_2OCH_2C(O)-$ ,
- k)  $benzylOCH_2C(O)-$ ,
- l)-m)



, and

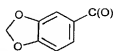


$R^{13}$  is selected from the group consisting of:

- a)  $R^{14}OC(R^{16})(R^{17})C(O)-$ ,
- b)  $R^{15}OC(O)-$ ,
- c)  $R^{18}C(O)-$ ,
- d)  $H_3CC(O)(CH_2)_2C(O)$ ,
- e)  $R^{19}SO_2-$ ,
- f)  $HOCH_2C(O)-$ ,
- g)  $R^{20}(CH_2)_2-$ ,
- h)  $R^{21}C(O)OCH_2C(O)-$ ,
- i)  $(CH_3)_2NCH_2C(O)NH-$ ,
- j)  $NCCH_2-$ ,
- k)  $F_2CHCH_2$ ,
- l)-m)



, and



$R^{14}$  is H,  $CH_3$ , benzyl, or  $CH_3C(O)-$ ;

$R^{15}$  is  $(C_1-C_3)$ alkyl, aryl, or benzyl;

$R^{16}$  and  $R^{17}$ , independently, are H or  $CH_3$ ;

$R^{18}$  is selected from the group consisting of:

- a) H-,
- b) (C<sub>1</sub>-C<sub>4</sub>)alkyl,
- c) aryl(CH<sub>2</sub>)<sub>m</sub>,
- d) ClH<sub>2</sub>C-,
- e) Cl<sub>2</sub>HC-,
- f) FH<sub>2</sub>C-,
- g) F<sub>2</sub>HC-, and
- h) (C<sub>3</sub>-C<sub>6</sub>)cycloalkyl;

R<sup>19</sup> is selected from the group consisting of:

- a) CH<sub>3</sub>,
- b) CH<sub>2</sub>Cl,
- c) CH<sub>2</sub>CH=CH<sub>2</sub>,
- d) aryl, and
- e) CH<sub>2</sub>CN;

R<sup>20</sup> is OH, CH<sub>3</sub>O-, or F;

R<sup>21</sup> is:

- a) CH<sub>3</sub>-,
- b) HOCH<sub>2</sub>-,
- c) aniline, or
- d) (CH<sub>3</sub>)<sub>2</sub>N-CH<sub>2</sub>-,

R<sup>22</sup> is selected from the group consisting of:

- a) HO-
- b) CH<sub>3</sub>O-
- c) H<sub>2</sub>N-
- d) CH<sub>3</sub>OC(O)O-,
- e) CH<sub>3</sub>C(O)OCH<sub>2</sub>C(O)O-,
- f) aryl-CH<sub>2</sub>OCH<sub>2</sub>C(O)O-,
- g) HO(CH<sub>2</sub>)<sub>2</sub>O-,
- h) CH<sub>3</sub>OCH<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>O-, and
- i) CH<sub>3</sub>OCH<sub>2</sub>O-;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl unsubstituted with one of the following:

- a) F,
- b) Cl,
- c) OCH<sub>3</sub>,
- d) OH,
- e) NH<sub>2</sub>,
- f) (C<sub>1</sub>-C<sub>4</sub>)alkyl,
- g) OC(O)OCH<sub>3</sub>, or
- h) NO<sub>2</sub>;

and protected forms thereof.

44. The method of claim 43 wherein R<sup>1</sup> is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1λ<sup>6</sup>-thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

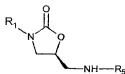
45. The method of claim 41 wherein R<sup>3</sup> is C<sub>4</sub>-C<sub>7</sub> tertiary alkyl.

46. The method of claim 45 wherein R<sup>3</sup> is tertiary butyl.

47. The method of claim 41 wherein R<sup>2</sup> is methyl.

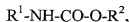
48. The method of claim 41 wherein X is Cl.

49. A method of preparing an (S)-oxazolidinone having a general structural formula:



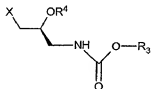
wherein  $R^1$  is optionally substituted aryl, and  $R^5$  is  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  cycloalkylcarbonyl,  $C_1$ - $C_6$  alkylthiocarbonyl, or  $C_1$ - $C_6$  cycloalkylthiocarbonyl; or a salt or hydrate thereof, comprising:

(a) contacting a carbamate having general structural formula:



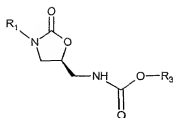
wherein  $R^2$  is selected from the group consisting of  $C_1$ - $C_{20}$  alkyl,  $C_3$ - $C_7$  cycloalkyl, aryl optionally substituted with one or two  $C_1$ - $C_3$  alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl,  $C_1$ - $C_4$  alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl, trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, 2-furanylmethyl, isobornyl, and hydrogen;

with a (S)-protected alcohol/ester having a general structural formula:

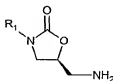


wherein X is a halogen, alkylsulfonyl, or arylsulfonyl;  $R^3$  is  $C_1$ - $C_{10}$  alkyl; and  $R^4$  is hydrogen or  $C_1$ - $C_5$  alkylcarbonyl;

in the presence of a lithium cation and a base whose conjugate acid has a  $pK_a$  of greater than about 8, to provide an (S)-protected oxazolidinone having a general structural formula:



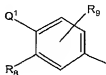
(b) contacting the reaction product of step (a) with an aqueous acid to produce an (S)-oxazolidinone free amine having a general structural formula:



and (c) contacting the reaction product of step (b) with a base and an acylating or thioacylating agent selected from the group consisting of (i) an acid anhydride of the structural formula  $O(R^5)_2$ , (ii) an activated acid of the structural formula  $R^5X$ , or (iii) a dithioester of the structural formula  $R^5S(C=S)R^5$ , wherein  $R^5$  is  $C_1$ - $C_6$  alkylcarbonyl,  $C_1$ - $C_6$  cycloalkylcarbonyl,  $C_1$ - $C_6$  alkylthiocarbonyl, or  $C_1$ - $C_6$  cycloalkylthiocarbonyl, and X is halogen, alkylsulfonyl, or arylsulfonyl.

50. The method of claim 49 further comprising isolating the (S)-oxazolidinone in a crystalline form.

51. The method of claim 49 wherein  $R^1$  is:



wherein  $Q^1$  is:  $R^{10}R^{11}N$ ,





or  $Q^1$  and  $R^8$  taken together are dihydropyrrolidine, optionally substituted with  $R^{12}$ ;

$Z^1$  is  $CH_2(CH_2)_p$ ,  $CH(OH)(CH_2)_p$ , or  $C(O)$ ;

$Z^2$  is  $(O)_pS$ ,  $O$ , or  $N(R^{13})$ ;

$Z^3$  is  $(O)_pS$  or  $O$ ;

$A^1$  is  $H$  or  $CH_3$ ;

$A^2$  is selected from the group consisting of:

- a)  $H$ ,
- b)  $HO$ ,
- c)  $CH_3$ ,
- d)  $CH_3O$ ,
- e)  $R^{14}OCH_2=C(O)NH$ ,
- f)  $R^{15}OC(O)NH$ ,
- g)  $(C_1-C_3)alkoxycarbonyl$ ,
- h)  $HOCH_2$ ,
- i)  $CH_3ONH$ ,
- j)  $CH_3C(O)$ ,
- k)  $CH_3C(O)CH_2$ ,
- l)  $CH_3C(OCH_2CH_2O)$ , and
- m)  $CH_3C(OCH_2CH_2O)CH_2$ ,

or  $A^1-C-A^2$  taken together are  $CH_3-C(OCH_2CH_2O)$ ,  $C(O)$ , or  $C(=NR^{22})$ ;

$R^8$  is  $H$  or  $F$ , or is taken together with  $Q^1$  as above;

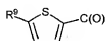
$R^9$  is  $H$  or  $F$ ;

$R^{10}$  and  $R^{11}$  are taken together with the  $N$  atom to form a 3,7-diazabicyclo[3.3.0]octane, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, morpholine or a piperazine group, optionally substituted with  $R^{13}$ ;

$R^{12}$  is selected from the group consisting of:

- a)  $CH_3C(O)-$ ,

- b)  $\text{HC(O)}-$ ,
- c)  $\text{Cl}_2\text{CHC(O)}-$ ,
- d)  $\text{HOCH}_2\text{C(O)}-$ ,
- e)  $\text{CH}_3\text{SO}_2-$ ,
- f)  $\text{F}_2\text{CHC(O)}-$ ,
- g)  $\text{H}_3\text{CC(O)OCH}_2\text{C(O)}-$ ,
- h)  $\text{HC(O)OCH}_2\text{C(O)}-$ ,
- i)  $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$ ,
- j)  $\text{H}_3\text{CCHCH}_2\text{OCH}_2\text{C(O)}-$ ,
- k)  $\text{benzylOCH}_2\text{C(O)}-$ ,
- l)-m)

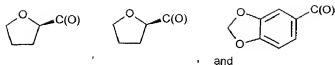


, and



$\text{R}^{13}$  is selected from the group consisting of:

- a)  $\text{R}^{14}\text{OC(R}^{16})(\text{R}^{17})\text{C(O)}-$ ,
- b)  $\text{R}^{15}\text{OC(O)}-$ ,
- c)  $\text{R}^{18}\text{C(O)}-$ ,
- d)  $\text{H}_3\text{CC(O)(CH}_2)_2\text{C(O)}$ ,
- e)  $\text{R}^{19}\text{SO}_2-$ ,
- f)  $\text{HOCH}_2\text{C(O)}-$ ,
- g)  $\text{R}^{20}(\text{CH}_2)_2-$ ,
- h)  $\text{R}^{21}\text{C(O)OCH}_2\text{C(O)}-$ ,
- i)  $(\text{CH}_3)_2\text{NCH}_2\text{C(O)NH}-$ ,
- j)  $\text{NCCH}_2-$ ,
- k)  $\text{F}_2\text{CHCH}_2-$ ,
- l)-m)



$R^{14}$  is H,  $CH_3$ , benzyl, or  $CH_3C(O)-$ ;

$R^{15}$  is  $(C_1-C_3)$ alkyl, aryl, or benzyl;

$R^{16}$  and  $R^{17}$ , independently, are H or  $CH_3$ ;

$R^{18}$  is selected from the group consisting of:

- H-,
- $(C_1-C_4)$ alkyl,
- aryl $(CH_2)_m$ ,
- $CH_2C-$ ,
- $CH_2HC-$ ,
- $FH_2C-$ ,
- $F_2HC-$ , and
- $(C_3-C_6)$ cycloalkyl;

$R^{19}$  is selected from the group consisting of:

- $CH_3$ ,
- $CH_2Cl$ ,
- $CH_2CH=CH_2$ ,
- aryl, and
- $CH_2CN$ ;

$R^{20}$  is OH,  $CH_3O-$ , or F;

$R^{21}$  is:

- $CH_3-$ ,
- $HOCH_2-$ ,
- aniline, or
- $(CH_3)_2N-CH_2-$ ,

$R^{22}$  is selected from the group consisting of:

- $HO-$
- $CH_3O-$

- c)  $\text{H}_2\text{N}-$
- d)  $\text{CH}_3\text{OC}(\text{O})\text{O}-$ ,
- e)  $\text{CH}_3\text{C}(\text{O})\text{OCH}_2\text{C}(\text{O})\text{O}-$ ,
- f)  $\text{aryl}-\text{CH}_2\text{OCH}_2\text{C}(\text{O})\text{O}-$ ,
- g)  $\text{HO}(\text{CH}_2)_2\text{O}-$ ,
- h)  $\text{CH}_3\text{OCH}_2\text{O}(\text{CH}_2)_2\text{O}-$ , and
- i)  $\text{CH}_3\text{OCH}_2\text{O}-$ ;

m is 0 or 1;

n is 1-3;

p is 0-2; and

aryl is unsubstituted phenyl or phenyl substituted with one of the following:

- a) F,
- b) Cl,
- c)  $\text{OCH}_3$ ,
- d) OH,
- e)  $\text{NH}_2$ ,
- f)  $(\text{C}_1-\text{C}_4)\text{alkyl}$ ,
- g)  $\text{OC}(\text{O})\text{OCH}_3$ , or
- h)  $\text{NO}_2$ ;

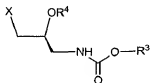
and protected forms thereof.

52. The method of claim 51 wherein  $\text{R}^1$  is selected from the group consisting of 3-fluoro-4-[4-(benzyloxycarbonyl)-1-piperazinyl]phenyl, 3-fluoro-4-(4-morpholinyl)phenyl, 4-(1,1-dioxohexahydro-1 $\lambda^6$ -thiopyran-4-yl)-3-fluorophenyl, 3-fluoro-4-tetrahydro-2H-thiopyran-4-ylphenyl, 3,5-difluoro-4-(4-thiomorpholinyl)phenyl, 3-fluoro-4-(3-thietanyl)phenyl, and 4-(1,1-dioxido-3-thietanyl)-3-fluorophenyl.

53. The method of claim 49 wherein  $\text{R}^3$  is  $\text{C}_4-\text{C}_7$  tertiary alkyl.

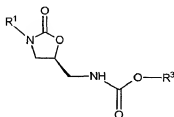
54. The method of claim 53 wherein  $\text{R}^3$  is tertiary butyl.

55. The method of claim 49 wherein  $R^2$  is methyl.
56. The method of claim 49 wherein X is Cl.
57. (Amended) A compound having the S-configuration of general structural formula:

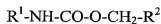


wherein  $R^3$  is  $C_1$ - $C_{10}$  alkyl,  $R^4$  is hydrogen or  $C_1$ - $C_5$  alkylcarbonyl, X is halogen, alkylsulfonyloxy, arylsulfonyloxy, or taken together with  $OR^4$  to form an epoxide.

58. (Amended) A method of preparing an (S)-oxazolidinone having a general structural formula:



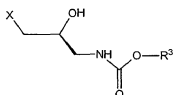
wherein  $R^3$  is  $C_1$ - $C_{10}$  alkyl, and  $R^1$  is optionally substituted aryl, or a salt or hydrate thereof, comprising contacting a carbamate having a general structural formula:



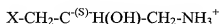
wherein  $R^2$  is selected from the group consisting of  $C_1$ - $C_{20}$  alkyl,  $C_3$ - $C_7$  cycloalkyl, phenyl optionally substituted with one or two  $C_1$ - $C_3$  alkyl or halogen groups, allyl, 3-methylallyl, 3,3-dimethylallyl, vinyl, styrylmethyl, benzyl optionally substituted on the phenyl with one or two Cl,  $C_1$ - $C_4$  alkyl, nitro, cyano, or trifluoromethyl groups, 9-fluorenylmethyl,

trichloromethylmethyl, 2-trimethylsilylethyl, phenylethyl, 1-adamantyl, diphenylmethyl, 1,1-dimethylpropargyl, and isobornyl, or a salt or hydrate thereof, with

- i) a secondary alcohol having a general structural formula:

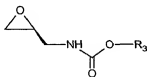


wherein X is halogen, alkylsulfonyloxy, or arylsulfonyloxy, or a salt or hydrate thereof made by the process comprising contacting an (S)-3-carbon amino alcohol having a general structural formula:

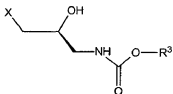


with a base and an carbonylating agent selected from the group consisting of a haloformate having a formula  $R^3O-CO-X$  and a dialkyldicarbonate having a formula  $R^3OCO_2R^3$ ;

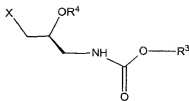
- ii) an (S)-epoxide having a general structural formula:



made by the process comprising contacting an (S)-secondary alcohol having a general structural formula:

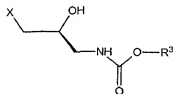


with a base and an acylating agent selected from the group consisting of an acid anhydride having a formula  $O(R^4)_2$ , and an activated acid having a formula  $R^4X$ ; or iii) an (S)-ester having a general structural formula:



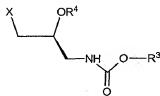
wherein  $R^4$  is  $C_1$ - $C_5$  alkylcarbonyl made by the process comprising contacting

a) an (S)-secondary alcohol having a general structural formula:



wherein X is a halogen, alkylsulfonyloxy, or arylsulfonyloxy; or

b) an (S)-ester having a general structural formula:



wherein  $R^4$  is  $C_1$ - $C_5$  alkylcarbonyl, with a lithium cation and a base whose conjugate acid has a  $pK_a$  of greater than about 8;

in the presence of a lithium cation and a base whose conjugate acid has a  $pK_a$  of greater than about 8.